

I. AMENDMENTS

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 to 67 (Canceled)

68. (Withdrawn) A method of altering a curvature of a cornea to correct a refractive error, comprising:

making an initial incision through a corneal epithelium or limbus;

introducing an intrastromal implant radially into the cornea through the initial incision and advancing the implant through a corneal stroma without entering a central optical zone, the implant being shaped to substantially correct the refractive error.

69. (Withdrawn) The method of claim 68, wherein the implant is an elongated member having a long axis which is advanced radially into the corneal stroma, below a corneal epithelium and Bowman's membrane, through the initial incision in the corneal epithelium or limbus, through which initial incision the long axis of the implant is introduced.

70. (Withdrawn) The method of claim 69, wherein after introduction through the initial incision, the implant is introduced radially into the incision without interrupting Bowman's membrane, and without entering a central optical zone of the cornea.

71. (Withdrawn) The method of claim 68, wherein the implant is placed in a subject having myopia, and the implant has a curvature greater than the corneal curvature prior to introduction of the implant, to flatten a central curvature of the cornea.

72. (Withdrawn) The method of claim 68, wherein the implant is placed in a subject having hyperopia, and the implant has a curvature less than the corneal curvature prior to introduction of the implant, to steepen a central curvature of the cornea.

73. (Withdrawn) The method of claim 68, wherein introducing a stromal implant comprises inserting a plurality of implants into the cornea.

74. (Withdrawn) The method of claim 73, wherein inserting the plurality of implants comprises radially inserting the plurality of the implants substantially symmetrically about the cornea.

75. (Withdrawn) The method of claim 73, wherein inserting the plurality of the implants comprises radially inserting the plurality of radial implants asymmetrically about the cornea.

76. (Withdrawn) The method of claim 75, wherein the plurality of radial implants are introduced asymmetrically into the cornea of a subject having astigmatism.

77. (Withdrawn) The method of claim 68, further comprising inserting a plurality of the implants radially in the cornea to achieve a desired refractive correction.

78. (Withdrawn) The method of claim 73, further comprising selectively removing at least one of the implants after they have been introduced into the cornea.

79. (Withdrawn) The method of claim 69, wherein the implant is elongated, and the method further comprises making a radial tunnel in the cornea below the corneal epithelium, through the initial incision, prior to introducing the implant into the cornea.

80. (Withdrawn) The method of claim 68, wherein the implant is substantially linear in shape.

81. (Withdrawn) The method of claim 68, wherein the implant has a tapered leading end that facilitates introduction of the implant into the cornea, and the implant is introduced tapered end first into the cornea.

82. (Withdrawn) A method of altering a curvature of a cornea to correct a refractive error in a subject, comprising:

providing an elongated implant, wherein the implant has a pre-selected curvature or shape, along its longitudinal axis, designed to offset a refractive error in a subject;
making an initial incision in a periphery of limbus of the cornea;

inserting the implant into a stroma of the cornea through the initial incision, without entering a central optical zone or disrupting the epithelium at other than the initial incision, wherein a greatest width of the implant substantially conforms to the dimensions of the initial incision as the implant is introduced along its longitudinal axis radially into the cornea.

83. (Withdrawn) The method of claim 82, further comprising injecting the implant into the corneal stroma.

84. (Withdrawn) The method of claim 82, further comprising forming a stromal tunnel below the epithelium from the initial incision prior to introducing the implant into the cornea.

85. (Withdrawn) The method of claim 84, wherein forming a stromal tunnel comprises introducing a penetrating member into the cornea.

86. (Currently Amended) An intracorneal insert for introduction into the cornea of a human eye, said insert comprising a physiologically compatible polymer comprised of at least one synthetic polymer and further comprising at least one elongated portion having a component with a radius of curvature, measured along the centroidal axis of the insert, greater than 5.0 mm, wherein the insert is adapted for implantation within a human cornea without extending into the sight area of the cornea, with said component extending in a meridional direction thereby to effect refractive correction.

87. (Previously Presented) The insert of claim 86, wherein said radius of curvature is at least 5.5 mm.

88. (Previously Presented) The insert of claim 86, wherein said radius of curvature is between 6.0 and 9.0 mm.

89. (Previously Presented) The insert of claim 86, wherein said radius of curvature is between 7.0 and 8.0 mm.

90. (Previously Presented) The insert of claim 86, wherein said meridional component has a radius of curvature approximating a human corneal curvature when placed in the eye.

91. (Previously Presented) The insert of claim 86, having a centroidal length of less than 3.0 mm.
92. (Previously Presented) The insert of claim 91, wherein said centroidal length is less than or equal to 2.5 mm.
93. (Previously Presented) The insert of claim 91, wherein said centroidal length is less than or equal 2.0 mm.
94. (Previously Presented) The insert of claim 86, wherein said elongated portion extends only in a single direction.
95. (Previously Presented) The insert of claim 86, wherein said elongated portion extends in different directions.
96. (Previously Presented) The insert of claim 95, wherein the insert is configured in the shape of an anchor.
97. (Previously Presented) The insert of claim 95, wherein said insert is configured in the shape of a cross.
98. (Previously Presented) The insert of claim 95 wherein said insert is configured in the shape of a boomerang.
99. (Previously Presented) An intracorneal refractive correction insert for introduction into the cornea of a human eye, said insert comprising a physiologically compatible polymer and being adapted for implantation within a human cornea, said insert further comprising a first elongated portion and a second elongated portion extending therefrom in a different direction, one of said first and said second portions being configured for radial insertion in the cornea of a human eye.
100. (Previously Presented) The insert of claim 99, wherein said first elongated portion has said second and a third elongated portion extending therefrom.
101. (Previously Presented) The insert of claim 100, wherein said insert is configured in the shape of an anchor.
102. (Previously Presented) The insert of claim 100, wherein said insert is configured in the shape of a boomerang.

103. (Previously Presented) The insert of claim 100, wherein said insert is configured in the shape of a cross.